

CLAIMS

What is claimed is:

- 5 1. A network system design system comprising:
- (a) a combined computing device comprising:
- (i) a first computing device;
- (ii) a second computing device, wherein the second computing device is
- communicably coupled to the first computing device; and
- (b) an executing program,
- (i) wherein the executing program is running on the combined computing
- device; and
- (ii) wherein the executing program is adapted to configure a network system.
- 15 2. The network system design system of claim 1, wherein the executing program is running
- on the second computing device.
3. The network system design system of claim 1,
- (a) wherein the second computing device is communicably coupled to the first
- 20 computing device via an internet connection; and

(b) a web server, wherein the executing program comprises the web server.

4. The network system design system of claim 3, wherein the web server is scalable.

5 5. The network system design system of claim 4, wherein the web server comprises a single system.

6. The network system design system of claim 4, wherein the web server comprises multiple systems, wherein the multiple systems are related by clustering.

7. The network system design system of claim 6, wherein the loads of the multiple systems are balanced via geographic load balancing.

8. The network system design system of claim 1, wherein the web server is scalable.

15 9. The network system design system of claim 8, wherein the web server comprises a single system.

20 10. The network system design system of claim 8, wherein the web server comprises multiple systems, wherein the multiple systems are related by clustering.

11. The network system design system of claim 10, wherein the loads of the multiple systems are balanced via geographic load balancing.

12. The network system design system of claim 1, wherein the executing program is adapted to interface with a billing system, wherein the executing program sends information to the billing system upon completion of network system design, whereby billing automation is facilitated.

13. The network system design system of claim 1, wherein the executing program is adapted to show one of multiple views via the first computing device.

14. The network system design system of claim 13, wherein each one view of the multiple views has at least one difference from the other views of the multiple views.

15. The network system design system of claim 14, wherein the possible differences comprise:

- (a) different information displayed, wherein the information display formats include textual and graphical representations; and
- (b) different access rights to change information.

16. The network system design system of claim 15, wherein the multiple views comprise:

- (a) customer view;
- (b) salesperson view; and
- (c) management view.

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17. The network system design system of claim 1, wherein the executing program comprises a database server, the database server being adapted to access data elements related to the network system being configured.

18. The network system design system of claim 17, wherein the data elements comprise available components.

19. The network system design system of claim 17, wherein the data elements further comprise business rules, wherein the business rules define combinations of available components as having an allowability state, wherein the set of possible allowability states comprises:

- (a) allowed; and
- (b) not allowed.

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20. The network system design system of claim 17, wherein the data elements comprise graphic representation data.

21. The network system design system of claim 17, wherein the data elements comprise pricing of components.

22. The network system design system of claim 17, wherein the data elements comprise inventory of components.

23. The network system design system of claim 17, wherein the data elements comprise functionality of components.

24. The network system design system of claim 17, wherein the executing program composes the data elements into a unified front end.

25. The network system design system of claim 19, wherein the executing program composes the data elements into a unified front end.

26. The network system design system of claim 22, wherein the executing program is adapted to calculate lead times based on the inventory of components.

27. The network system design system of claim 20, wherein the graphic representation data comprises bitmaps.

28. The network system design system of claim 1, wherein configuration of the network system comprises software configuration, the software being adapted to operate the network system.

29. The network system design system of claim 1, wherein configuration of the network system comprises security configuration, the security comprising security of the network system.

30. The network system design system of claim 1, wherein configuration of the network system comprises storage configuration, the storage comprising a memory system of at least one memory device, wherein the memory system is adapted to store data for the network system.

31. The network system design system of claim 1, wherein configuration of the network system comprises:

(a) software configuration, the software being adapted to operate the network system;

(b) security configuration, the security comprising security of the network system;

and

(c) storage configuration, the storage comprising a memory system of at least one memory device, wherein the memory system is adapted to store data for the network system.

32. The network system design system of claim 31,

(a) wherein the executing program comprises a web server;

(b) wherein the second computing device is communicably coupled to the first computing device via an internet connection; and

(c) wherein the web server is adapted to distribute information via the internet connection.

33. The network system design system of claim 32, wherein the web server comprises a single system.

34. The network system design system of claim 32, wherein the web server comprises multiple systems, wherein the multiple systems are related by clustering.

35. The network system design system of claim 32, wherein the web server comprises multiple systems,

- (i) wherein the multiple systems are related by clustering; and
- (ii) wherein the loads of the multiple systems are balanced via geographic load balancing.

36. The network system design system of claim 31, wherein the executing program comprises a database server, the database server being adapted to access data elements related to the network system being configured.

37. The network system design system of claim 36, wherein the data elements comprise available components.

38. The network system design system of claim 37, wherein the data elements comprise business rules, wherein the business rules define combinations of available components as having an allowability state, wherein the set of possible allowability states comprises:

- (a) allowed; and
- (b) not allowed.

39. The network system design system of claim 36, wherein the data elements comprise graphic representation data.

40. The network system design system of claim 36, wherein the data elements comprise pricing of components.

41. The network system design system of claim 36, wherein the data elements comprise inventory of components.

42. The network system design system of claim 36, wherein the data elements comprise functionality of components.

43. A network system design method, comprising:

(a) receiving input;

(b) configuring a network system based on the input,

(i) wherein the network system comprises a set of network components based on:

(1) components included in the network system before the configuring;

(2) components to be added to the network system, according to the input; and

(3) components to be removed from the network system, according to the input; and

(ii) wherein the network system further comprises a set of connectivity relationships among the network components based on:

(1) connectivity relationships included in the network system before the configuring;

(2) connectivity relationships to be added to the network system, according to the input; and

(3) connectivity relationships to be removed from the network system, according to the input.

(b) sending user network specifications based on the network system; and

(c) storing the network system after the configuring.

44. The network system design method of claim 43, further comprising the step of requesting input before receiving input.

45. The network system design method of claim 43, wherein the input comprises:

- (a) a selected component; and
- (b) a connectivity relationship of the selected component in relation to at least one of the network components.

46. The network system design method of claim 43, wherein the network system further comprises network software based on:

- (a) network software included in the network system before the configuring;
- (b) network software to be added to the network system, according to the input; and
- (c) network software to be removed from the network system, according to the input.

47. The network system design method of claim 43, wherein the network system further comprises network security based on:

- (a) network security included in the network system before the configuring;
- (b) network security to be added to the network system, according to the input; and
- (c) network security to be removed from the network system, according to the input.

48. The network system design method of claim 43, wherein the network system further comprises storage based on:

- (a) storage included in the network system before the configuring;
- (b) storage to be added to the network system, according to the input; and
- (c) storage to be removed from the network system, according to the input.

49. The network system design method of claim 43, wherein the network system further comprises a cluster configuration of network components, the cluster configuration comprising cluster relationships among the network components, the cluster configuration being based on:

- (a) cluster relationships included in the network system before the configuring;
- (b) cluster relationships to be added to the network system, according to the input;
and
- (c) cluster relationships to be removed from the network system, according to the input.

50. The network system design method of claim 43, wherein the network system further comprises a geographic location of each network component based on:

- (a) geographic location of each component included in the network system before the configuring;
- (b) geographic location of each component to be added to the network system, according to the input; and
- (c) geographic location of each component to be removed from the network system, according to the input.

51. The network system design method of claim 43, wherein the user network specifications comprise graphical representation of components, the graphical representation of components showing the components configured to compose the network system.

52. The network system design method of claim 43, further comprising:

- (a) receiving inventory information;
- (b) storing the inventory information after receiving inventory information; and
- (c) wherein the user network specifications comprise inventory levels.

53. The network system design method of claim 43, further comprising:

- (a) receiving inventory information;
- (b) storing the inventory information after receiving inventory information;
- (c) calculating estimated network component lead times based on the inventory information; and
- (d) wherein the user network specifications comprise the estimated network component lead times.

54. The network system design method of claim 43, further comprising:

- (a) receiving inventory information;
- (b) storing the inventory information after receiving inventory information;
- (c) calculating estimated network system lead time based on the inventory information; and
- (d) wherein the user network specifications comprise the estimated network system lead time.

55. The network system design method of claim 43, wherein the user network specifications comprise the network components.

56. The network system design method of claim 43, wherein the user network specifications further comprise the connectivity relationships among the network components.

57. The network system design method of claim 43, wherein the user network specifications further comprise the network software.

58. The network system design method of claim 43, wherein the user network specifications further comprise the network security.

59. The network system design method of claim 43, wherein the user network specifications further comprise the storage.

60. The network system design method of claim 43, wherein the user network specifications further comprise the cluster configuration.

61. The network system design method of claim 43, wherein the user network specifications further comprise the geographic location of each network component.